

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

811 South First St., Artesia, NM 88210-2835

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-8429Form C-107-A
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Phillips Petroleum Company Address 5525 Hwy. 64, Farmington, NM 87401Lease Gobernador #6 Well No. H, Sec. 15, 29N, 5W Unit Ltr. - Sec - Twp - Rge Rio Arriba CountyOGRID NO. 017654 Property Code 009255 API NO. 30-039-22471 Spacing Unit Lease Types: (check 1 or more)
Federal ☒ State ☐ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	77440 Gobernador PC		72319 Blanco MV
2. Top and Bottom of Pay Section (Perforations)	3602' - 3773'		5594' - 6016'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 540 psi (est.) b. (Original) 1288 psi (est.)	a. b.	a. 800 psi (est.) b. 1234 psi (est.)
6. Oil Gravity (°API) or Gas BTU Content	1145		1083
7. Producing or Shut-In?	SI		Producing
Production Marginal? (yes or no)	Yes		Yes
• If Shut-in, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data • If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 9/98 Rates: 7 mcf/d	Date: Rates:	Date: Rates:
	Date: Rates:	Date: Rates:	Date: 12/31/98 Rates: 36 mcf/d 3 bwpd
8. Fixed Percentage Allocation Formula - % for each zone	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones?
If not, have all working, overriding, and royalty interests been notified by certified mail?
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No ☒ Yes ☐ No ☒ Yes ☐ No11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☐ Yes ☐ No15. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10770

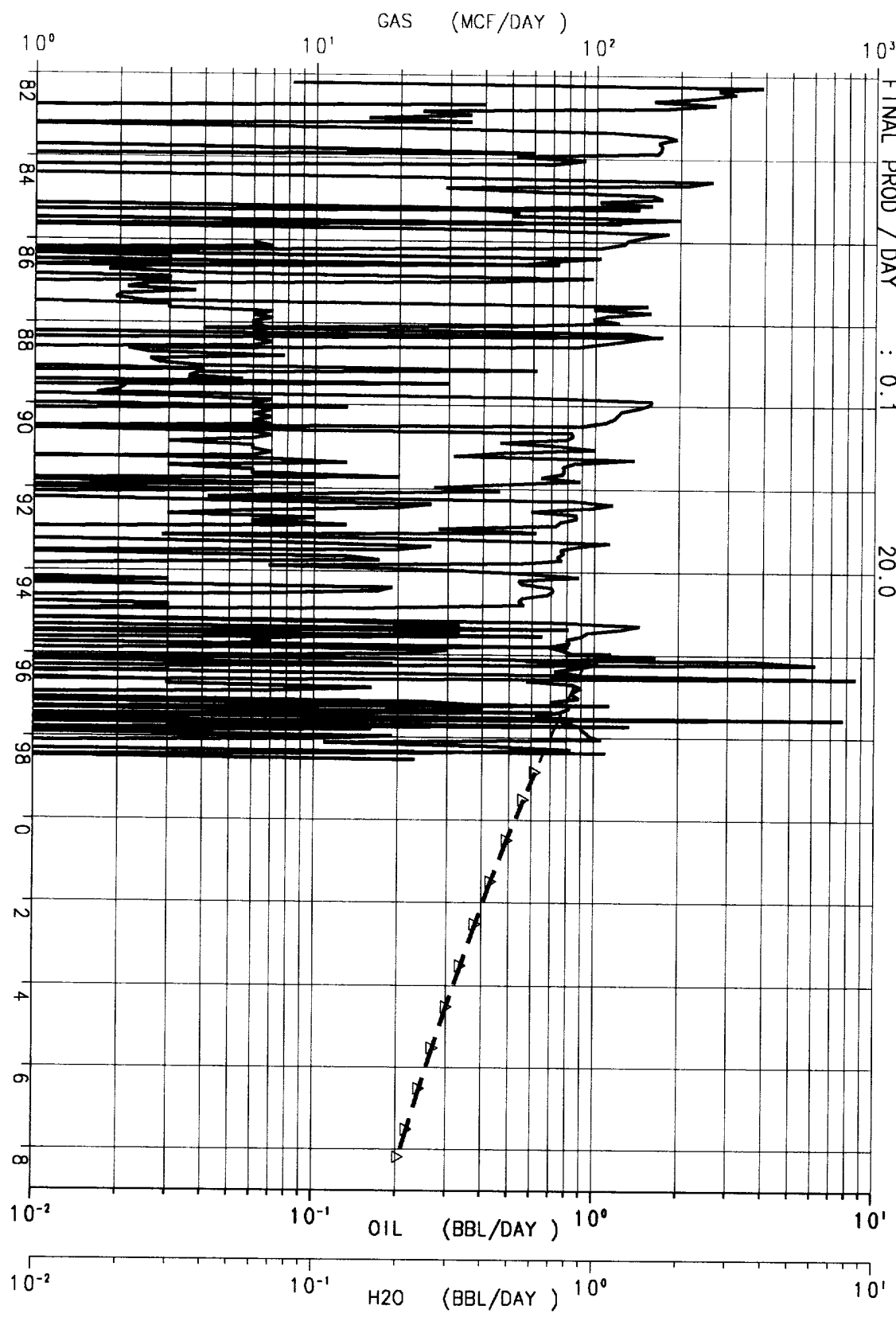
16. ATTACHMENTS:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of all offset operators.
- Notification list of working, overriding, and royalty interests for uncommon interest cases.
- Any additional statements, data, or documents required to support commingling.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Mark Stodola TITLE Reservoir Engr. DATE 2/25/99TYPE OR PRINT NAME Mark Stodola TELEPHONE NO. (505) 599-3455

INITIAL PROD / DAY	: 95.8	1/96-8/98	9/98-LIFE	63.4	Current Cumms
REMAINING LIFE	: 2.67			9.69	464495. MCF GAS
HYPR(0.33) DECL %	: 16.60			14.48	427. BBL OIL
CUM PRODUCTION	: 70175.			128286.	1081. BBL H2O
FINAL PROD / DAY	: 0.1			20.0	



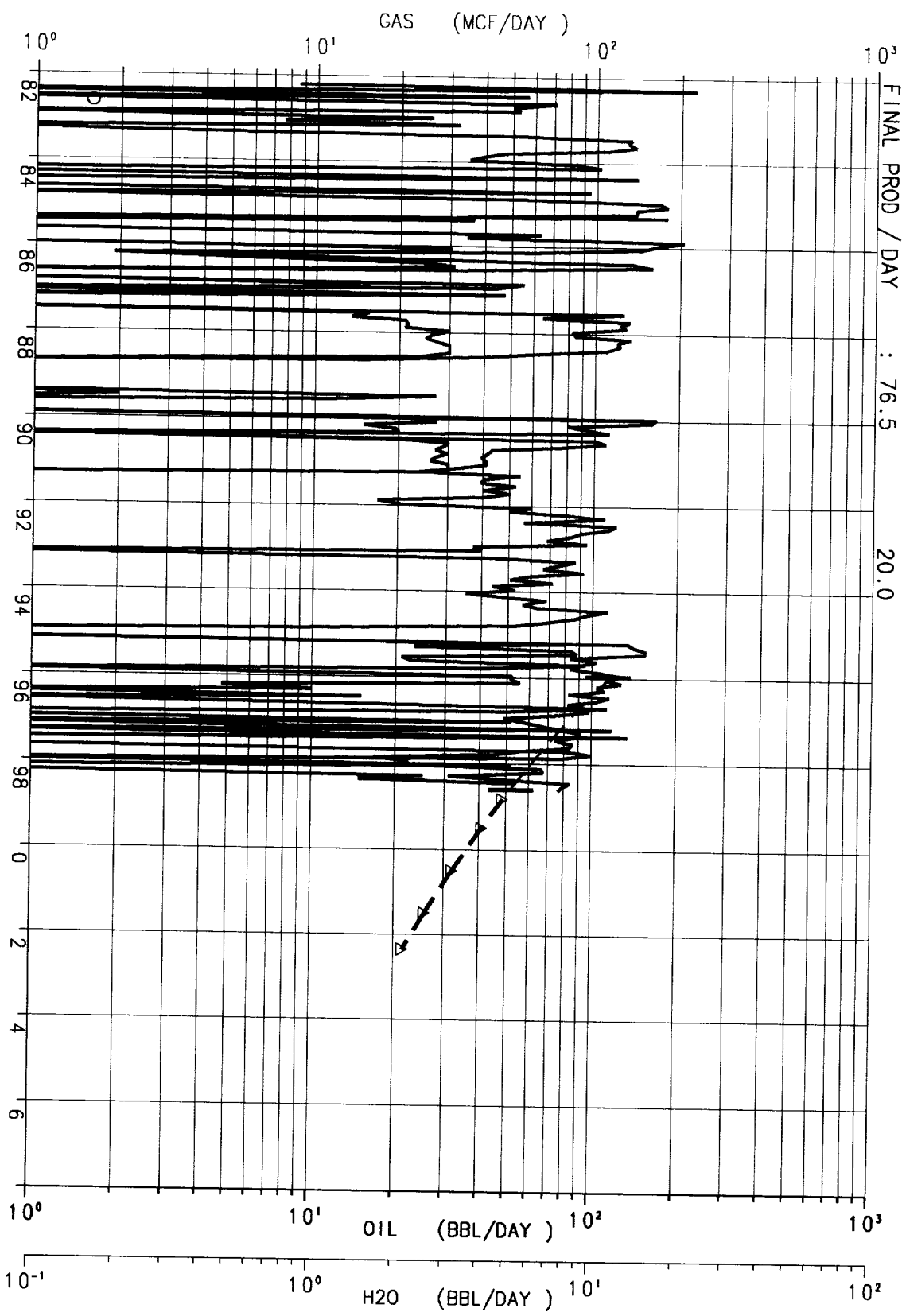
GOVERNADOR
 004 : GOVERNADOR (PICTURED CLIFFS)
 6 CUM MCF = 464642. 15H 29N 5W

DWIGHTS ACT
 251,039.29N05W15H00PC API-300392247100
 PHILLIPS PETROLEUM CO THRU 7/98

INITIAL PROD / DAY	: 115.0	9/98-LIFE
REMAINING LIFE	: 2.67	50.6
HYPR(0.33) DECL %	: 35.33	4.03
CUM PRODUCTION	: 72779.	26.95
FINAL PROD / DAY	: 76.5	47379.
		20.0

Current Cums

376674. MCF GAS
49. BBL OIL
7819. BBL H2O



RESVR- 004 : BLANCO (MESAVARDE)
WELL - 6 CUM MCF = 377091. 15H 29N 5W

DWIGHTS ACT
251,039,29N05W15H00M API-300392247100
PHILLIPS PETROLEUM CO THRU 8/98

Gobernador #6 Pictured Cliffs Forecast

<i>Initial Production Rate</i>	=	100 MCFD
<i>Hyperbolic Exponent</i>	=	0.33
<i>Decline Rate</i>	=	10 %

	Month	<i>Monthly MCF</i>
1999	Mar	3,087
	Apr	2,963
	May	3,036
	Jun	2,914
	Jul	2,986
	Aug	2,961
	Sep	2,842
	Oct	2,913
	Nov	2,796
	Dec	2,866
2000	Jan	2,842
	Feb	2,547
	Mar	2,798
	Apr	2,686
	May	2,753
	Jun	2,643
	Jul	2,710
	Aug	2,688

An initial rate of 100 MCFD is anticipated after workover and commingling downhole with the Mesaerde.



PHILLIPS PETROLEUM COMPANY

FARMINGTON, NEW MEXICO 87401
5525 HWY. 64 NBU 3004

February 24, 1999

New Mexico Oil & Gas Conservation Div.
2040 South Pacheco
Santa Fe, New Mexico 87505-6429

Downhole Commingling Allocation Method on the Gobernador #6

Dear Sirs:

Phillips is proposing to utilize the subtraction method on the subject well for approximately six months after actual commingling occurs. After the six month period we will convert to the ratio method as indicated in our commingling application. We believe this will be a more accurate method of allocating production considering that the Gobernador Picture Cliffs interval should be stabilized already and then new production from the Lewis Shale interval will not be stabilized for several months. Further, we believe that commingling these zones downhole will provide an uplift to both reservoirs. This will bring the Pictured Cliffs production up from 80 mcf to 100 mcf.

Pictured Cliffs Forecast

March 1999	3,087	August 1999	2,961
April 1999	2,963	September 1999	2,842
May 1999	3,036	October 1999	2,913
June 1999	2,914	November 1999	2,796
July 1999	2,986	December 1999	2,866

For example, if the total volume for April 1999 were 5,963 mcf, then the Pictured Cliffs would be allocated 2,963 mcf and the Mesaverde 3,000 mcf. And subsequently, the Pictured Cliffs would be allocated $(2,963/5,963)$ or 49% and the Mesaverde would be $(3,000/5,963)$ or 51%.

Sincerely,

PHILLIPS PETROLEUM COMPANY

Mark W. Stodola
Reservoir Engineer

MS/pc

cc: OCD - Aztec
BLM- Farmington
NM Commissioner of Public Lands - Santa Fe

Production Allocation Methodology

- ◆ Adding New Zone to Existing Zone - Initially Subtraction Method followed by Fixed Allocation Method
 - Subtraction Method (+/- 1st 12 months)
 - Forecast production rate by month for existing zone utilizing established decline curve for zone
 - Subtract forecasted rate from commingled rate to define new zone rate
 - Utilize subtraction method for +/- 12 months until new zone rate stabilizes, then utilize fixed allocation method with current rates
 - Fixed Allocation Method (after Subtraction Method)
 - Utilize forecasted rate from established decline curve for lower zone
 - Calculate upper zone rate by subtracting lower zone rate from commingled rate
 - Lower zone allocation = $\frac{\text{Lower zone rate}}{\text{Commingled rate}}$
 - Upper zone allocation = $\frac{(\text{Commingled rate} - \text{Lower zone rate})}{\text{Commingled rate}}$

**GOVERNADOR #6
WI/ORR/NRI OWNERS
MAILING LIST**

WILLIAMS PRODUCTION COMPANY
BURLINGTON RESOURCES OIL & GAS COMPANY
ACOMA OIL CORPORATION
TIM B ALLISON
GEORGIA F ANDERSON LIVING TRUST
AMIRA F BOISSON
MARIAN F. EARP MINFRAI TRUST
~FRANCES MEYER, TRUSTEE
FRANK B GERSBACH AND MAE B. GERSBACH
HOMER F JOHNSON
JESSIE L. JOHNSON
VIRGINIA JOHNSON
MCALLEN NATIONAL BANK, INDP EXC O/E/O
~JEWEL N. LANIER
RUTH E MCBRIDE
CHARLES W MCCARTY TRUST, NATIONSBANK TRUST OIL & GAS ACCOUNTING
JENNY POEGGEL AND MARY B. POEGGEL
C/O C. H. DUPLIX
DOROTHY E. DENMAN
DORATHEA S. BARNES
GUADALUPE B. MCCARTY
DEPARTMENT OF INTERIOR-MMS
~ROYALTY MANAGEMENT PROGRAM
AMOCO PRODUCTION COMPANY
REECE B. ANDERSON
JERRY J. ANDREW
PAMELA GRAY BALDWIN
ROBERT E. BEAMON
ASHLEY BRACKEN & SUSAN BRACKEN
JEREMY S. DAVIS
WATERS S. DAVIS III
BARBARA REESE BINGES
TED E. DUFF TRUSTEE OF
~THE T. E. DUFF TRUST
DUFF-LEACH FAMILY TRUST JUDITH DIANNE DUFF LEACH, TRUSTEE
C/O J DIANNE DUFF LEACH
GAIL A DURHAM
ESTATE OF ALBERT E. FAGAN DONALD E. FAGAN INDPNDNT EXEC
DAVID H. GRAY
CHASE BANK OF TEXAS, N.A.
AGENT & ATTORNEY-IN-FACT
TRUST MINERALS SEC-#1049309
JOHN L. GRAY
CHASE BANK OF TEXAS, N.A.
AGENT & ATTORNEY-IN-FACT
TRUST MINERALS SEC - 1049310
DAVID HENDERSON
MARY DOLL INGRAM
RICHARD A JENNINGS
GARY ROBERT JOHNSON
PAULINE P JOHNSON
NATIONSBANK, N.A.
~TRUSTEE FOR EULA MAY JOHNSTON
ESTATE OF JAMES J. JOHNSTON
V. A. JOHNSTON FAMILY TRUST, KATHERINE PREWITT & MICHAEL A CHESSER, TRUST
GLORIA WYNNE LANKFORD
ESTATE OF PATTIE ANN BEAMON LUNDELL ROBERT WALTER LUNDELL
CYNTHIA GRAY MILANI
CHASE BANK OF TEXAS, N.A.
AGENT & ATTORNEY-IN-FACT
TRUST MINERALS SEC-#1049313
THE NORDAN TRUST
PEARL NEUGENT NORDAN ESTATE, MARIAN NORDAN HARWELL
HARRY D. PROTER TRUST
C/O TRUST OIL & GAS
DAVID ELBERT REESE
ELIZABETH GOODWIN REESE
CATHARINE GRAY REMENICK
CHASE BANK OF TEXAS, N.A.
& A/I/F, TRUST MINERALS SECTION-#1049313
ROGERS GIBBARD TRUST
C/O SUSAN ROGERS EVELAND
DAVID WALKER SMITH
MARJORIE FISHER SMITH
UNION OIL COMPANY OF CALIFORNIA
ATTN: REVENUE ACCOUNTING
REBECCA ANN REESE WARD

**GOBERNADOR #6
W/ ORR/ NRI OWNERS
MAILING LIST
(CONTINUED)**

**L. DORIS WILLIAMS TRUST, WILLIAM P. TRAYLOR
~& JOHN G. HEARD, TRUSTEES
B. WYNNE WOOLLEY JR. & DAVID MARTIN WOOLLEY
CO-TRST OF THE B WYNNE WOOLLEY JR TRUST
UW/O LOTTIE PLUMMER WOOLLEY
DAVID MARTIN WOOLLEY & B. WYNNE WOOLLEY JR
~CO-TRUST OF THE DAVID MARTIN WOOLLEY TRUST
UW/O LOTTIE PLUMMER WOOLLEY**

**GOVERNADOR #6
OFFSET OWNERS
MAILING LIST**

**TEXAKOMA OIL & GAS COMPANY
ONE LINCOLN CENTRE
5400 LBJ FREEWAY, SUITE 500
DALLAS TX 75240-6236**

**BURLINGTON RESOURCES OIL & GAS COMPANY
P O BOX 4289
FARMINGTON NM 87499-4289**